

Title:

The NASA Airborne Tropical Tropopause Experiment (ATTREX):
High-Altitude Aircraft Measurements in the Tropical Western Pacific

Authors:

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Text:

The February through March 2014 deployment of the NASA Airborne Tropical Tropopause Experiment (ATTREX) provided unique in situ measurements in the western Pacific Tropical Tropopause Layer (TTL). Six flights were conducted from Guam with the long-range, high-altitude, unmanned Global Hawk aircraft. The ATTREX Global Hawk payload provided measurements of water vapor, meteorological conditions, cloud properties, tracer and chemical radical concentrations, and radiative fluxes. The campaign was partially coincident with the CONTRAST and CAST airborne campaigns based in Guam using lower-altitude aircraft. The ATTREX dataset is being used for investigations of TTL cloud, transport, dynamical, and chemical processes as well as for evaluation and improvement of global-model representations of TTL processes.